



OPERATOR MANUAL
SCREWS FOR FIXING STEEL SHEETS TO WOODEN SUBSTRATE
E-X BOHR RS TYPE WITH WASHER
No. OM_E-X BOHR RS 6,5_E16

Installation carried out in an appropriate way, using professional tools is extremely important for proper and safe use of building fasteners. Always follow all instructions listed in this operator manual.

General rules:

- The operator manual, apply only to original products supplied by Baltic Fasteners Sp. z o.o. bearing the Manufacturer's logo, which allows for their identification;
- The use of screws shall be confirmed by a fixing plan made on the basis of complete building data;
- When carrying out the fixing plan, observe the mounting parameters and take into account the loads of the connections given in valid approval or technical evaluation issued for the product;
- When carrying out the fixing plan, comply with applicable laws and standards;
- The steel sheet Manufacturer's recommendations must be taken into account;
- The number and type of screws must be in line with the information given in the fixing plan;
- Only tools that are equipped with clutch adjustment should be use;
- Modification of **E-X BOHR RS** screws with washer **E16** is not permitted;
- Products may only be used for their intended purpose.

Product selection rules:

- **E-X BOHR RS** screws with **E16** washer are designed for fixing steel sheets to wooden substrates where the tightness of joints is required;
- **E-X BOHR RS** screws with **E16** washers are designed for fixing structural steel sheets;
- **E-X BOHR RS** screws are covered by class **A1** reaction to fire and can be used in this class;
- The corrosion protection of the screws should be suitably selected for the corrosive environment in which they will be used. **E-X BOHR RS** bi-metal screws are made of stainless steel (except the drilling point made of carbon steel), which allows them to be used in corrosive environments **C4**. Washers **E16** delivered with screws are made of stainless steel, which allows them to be used in corrosive environments **C4**;
Warning! The screws are additionally covered with a zinc coating.
- The length of the screws should be appropriately selected depending on the thickness of all fixed elements:
 - thickness of the steel sheet;
 - thickness of **PES** sealing tapes, if used (tape thickness should not be greater than 3mm);
 - thickness of other components, if used.

In addition, the length of the screws should be appropriately selected to embedment depth in the substrate. In wooden substrate the following minimum embedment depth is allowed $h_{ef} = 30\text{mm}$;

- Screws can be used in wooden structures of minimum class **C24**;
- Maximum steel drilling capacity for screws **2.00mm**. Maximum tool speed **1800rpm**;
- In order to select the appropriate length of the screws, the thickness of all fixed elements must be summed. Then check in the product card exact length of the **E-X BOHR RS** screws that is suitable for fixing the obtained thickness, taking into account chosen embedment depth in the substrate. The sum of the thicknesses of all the elements must be within the range $h_{min} - h_{max}$ given in the product card;
Product card is available on the website www.balticfasteners.com;
- Screws can be fixed to a wooden substrate with a minimum thickness of **50mm**;

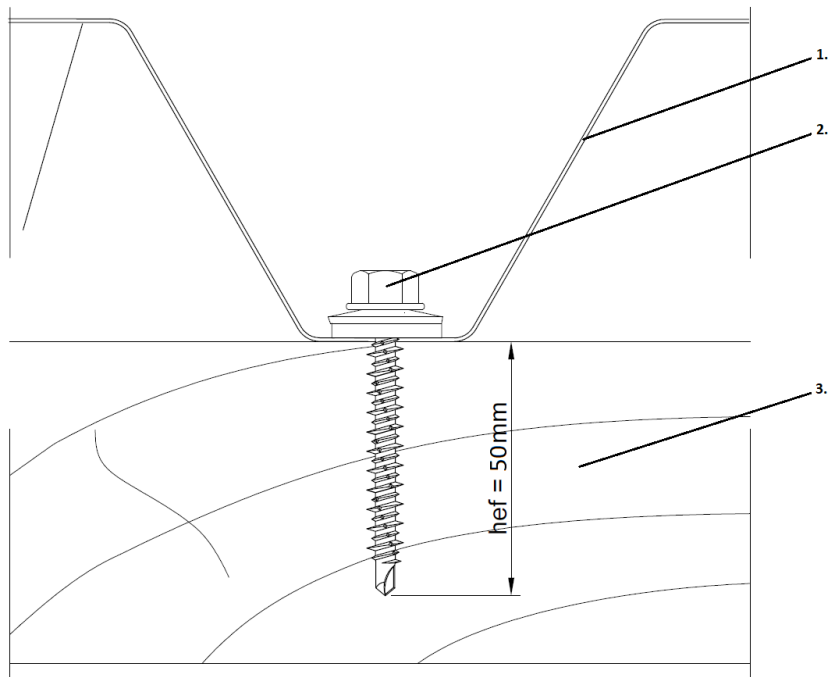
Installation process:

- Place the steel sheet, following instruction provided by the Manufacturer. Use of **PES** insulating tapes at the contact surface between panel / support is recommended;
- For structural sheets, it is recommended to install screws in the lower sheet wave;
- Screws can be screwed directly into the substrate through the steel sheet without pre-drilling;
- The steel sheet should be screwed to the substrate with the selected screws in accordance with the fixing plan.
 - a) Screws must always be mounted perpendicular to the substrate.
 - b) The EPDM should be properly tightened as shown on the picture below.



- c) Fixing parameters specified for the screw **E-X BOHR RS** need to be retained.
 - d) Use dedicated nut-setters **MNS-S8** also for fixing screws coated with paint.
 - e) The steel sheet should be fixed to each support with the same number of screws to balance the system;
- In case of damage to the paint coating on the screws, the defects must be further secured;
 - Overlapped waves of the steel sheet should be connected longitudinally by using overlapping screws with washer, for example **E-X BOHR RS 4,8x20**. The distance between screws should be **max. 250mm**;
 - Once you have fixed the steel sheet, proceed to assemble the next one by following the procedure given above.

Picture 1 illustrate the fixing of **E-X BOHR RS** screws to wooden substrate.



1. Structural steel sheet
2. Screw for wood E-X BOHR RS
3. Wood

Picture 1. Assembling of the E-X BOHR RS with structural steel sheet on wood.

Basic dimensions of screws E-X BOHR RS with washer E16 type:

